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Internet Protocol based multimedia system (IMS)

The present invention relates to an Internet protocol based multimedia system (IMS) used within a mobile communication network. Generally, this invention relates to wireless digital communication systems and methods, and particularly to third generation (3G) networks and to mobile terminals that operate in such networks.

A communication via e-mail and short message service is well known. By using these communication methods it is not possible for a subscriber to send multimedia messages within a certain range of distance around his own location.

US 2002 0126701 A1 discloses a system and method for Internet protocol based multimedia communication which makes use of means for location information and media components during information exchange between a communication center and peripheral units. The means for location information and the media components are provided by at least a mobile communications network, whereby the communication center providing a transmission of messages via a mobile community service. The information exchange includes a transmission of messages via a mobile community service which allows the subscriber to send contact data from his mobile handset to mobile handsets of other users for approach of interested people by sending them a message of a chosen media type and vice versa. The system and method disclosed does not allow the user to send and receive messages depending on location information.

It is the object of the present invention to disclose an Internet protocol based multimedia system and a procedure which provides a subscriber of a mobile communication with enhanced multimedia services.

This object is achieved according to the features of the independent claims.

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5 According to the independent apparatus claim of the present invention an Internet protocol based multimedia system is provided which is characterized by a combination of means for location information with media components during information exchange between a communication center and peripheral units. A procedure for information exchange using the components of such an Internet protocol based multimedia system is described in the independent method claim.

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Further embodiments and preferred features of the invention are disclosed in the dependent claims.

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The present invention offers to the user a so called Mobile Community Service which is described below.

Starting point for service definition was the aim to make use of the unique capabilities of mobile networks in general and unique features provided by IMS to

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Claims

- 5 1. Internet protocol based multimedia system which makes use of means for location information and media components during information (7) exchange between a communication center (3) and peripheral units (1, 4), wherein the means for location information and the media components are provided by at least a mobile communications network (2), and the communication center (3) providing a transmission of messages (7) via a mobile community service, characterized in that the region in which the message (7) shall be distributed is specified by different distribution classes, including the classes "local", "walking distance" and "city wide", whereby the distribution class "local" covers approximately the size of a radio cell and / or the neighboring cells, the distribution class "walking distance" covers the region within a walking distance, and the distribution class "city wide" covers a region in the borders of a city.
- 10 2. Internet protocol based multimedia system according to claim 1, characterized in that the information (7) includes either a text message, a voice messages, a picture message or a video message, or a combination thereof.
- 15 3. Procedure for information exchange using the components of an Internet protocol based multimedia system according to claim 1 or 2, wherein the information exchange includes a transmission of messages (7) via a mobile community service which allows the subscriber to send contact data from his mobile handset (1) to mobile handsets (4) of other users and vice versa, characterized in that the messages of a chosen media type are to be sent within a certain range around the subscribers current location or a set of chosen media types are to be received from other users within a certain range, characterized in that the region in which the message (7) shall be

distributed is specified by different distribution classes, including the classes "local", "walking distance" and "city wide", whereby the distribution class "local" covers approximately the size of a radio cell and / or the neighboring cells, the distribution class "walking distance" covers the region within a walking distance, and the distribution class "city wide" covers a region in the borders of a city.

4. Procedure according to claim 3, characterized in that an application menu is operated in the terminal devices (1, 4) of users of the mobile communication network (2) to gain access to the mobile community service.
5. Procedure according to claims 3 or 4, characterized in that the mobile community service comprises an active mode wherein the subscriber becomes active and send messages (7) to mobile devices (4) of other users, and an inactive mode in which he receives other community members messages only.
6. Procedure according to claim 5, characterized in that in both modes the preferred name and media type of the messages (7) is specified.
7. Procedure according to claims 5 or 6, characterized in that in the active mode the user specifies the media type and the special content of the message to be sent to other users.
8. Procedure according to claims 3 to 7, characterized in that the messages are recorded directly by using the user's mobile terminal capabilities
9. Procedure according to claim 3 to 8, characterized in that the messages are chosen from a set of pre-recorded contents.
10. Procedure according to claim 9, characterized in that the contents are predefined and stored under a personal account via a web interface.

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11. Procedure according to claim 9 or 10, characterized in that the stored contents are offered on a selection menu automatically to the subscriber if the active mode is selected.
12. Procedure according to claim 3 to 11, characterized in that web access to the Internet (5) is provided to all the users.
13. Procedure according to claim 3 to 12, characterized in that the users create content at a Personal Computer (6) and store it for later selection via the mobiles menu, where the pre-recorded content is shown up automatically when the mobile terminal community service module is activated.
14. Procedure according to claims 3 to 13, characterized in that the user specifies the region in which messages (7) can be sent and/or received.
15. Procedure according to claim 3 to 14, characterized in that the messages (7) are differentiated according to contact aims.
16. Procedure according to claim 3 to 15, characterized in that the messages (7) include details of personal interests.